Project 1 Report

Game: Zombie Apocalypse

Objective: In this game you play the character of a guy who is stuck in a Zombie Apocalypse. The guy has a Bow and Arrow which helps him survive the game. You use the bow and arrow to shoot the zombies and kill them. But when a zombie dies 2 more are created and as you keep killing the zombies the keep on increasing. If you survive for more than 200 seconds without dying you win, If not – game is over and score along with time survived is displayed.

Graphical Objects:

Player: The player animates using the sprite-sheet, it has 4 sprite rows for movement in all 4 direction and 4 sprite sheet rows to shoot arrow in all 4 directions. The sprite sheet is in the images folder of the game and its name is hero.png. The players moves on interaction with the keyboard. The action listeners in the code enable movement of player by increasing and decreasing player position co-ordinates with corresponding keystroke.
The player is bounded by the canvas and cannot move outside the boundaries of canvas. The player has attributes like x-axis position, y-axis position, width, height and HP (health). On collision with the zombie the player looses HP and if the players HP is below zero , he dies and game is over.

Zombie: The zombie animates using the sprite sheet zombie.png in the similar manner as the Player. The zombie moves in the canvas in random direction and changes the direction once it reaches the boundary. As it's a zombie it just moves around the canvas randomly but if it hits the player the player looses HP.

Arrow: The arrow is released when the player presses the spacebar. As the player character shoots the arrow the arrow moves straight and if it collides with the zombie, the zombie dies and the Arrow object is deleted i.e. the arrow no longer appears on the screen. When you press the spacebar a new arrow object is created which is released from the bow.

Scoring:

There are two types of score in this game. In case you die before 200 seconds, two types of scoring metrics are displayed, first the Number of zombies killed and second the time you survived. If you survived 200 seconds, you win and your score is just the number of zombies you killed in 200 seconds.
At all time during the gameplay, the score(Time elapsed and Zombies killed) is displayed on the top of the game.
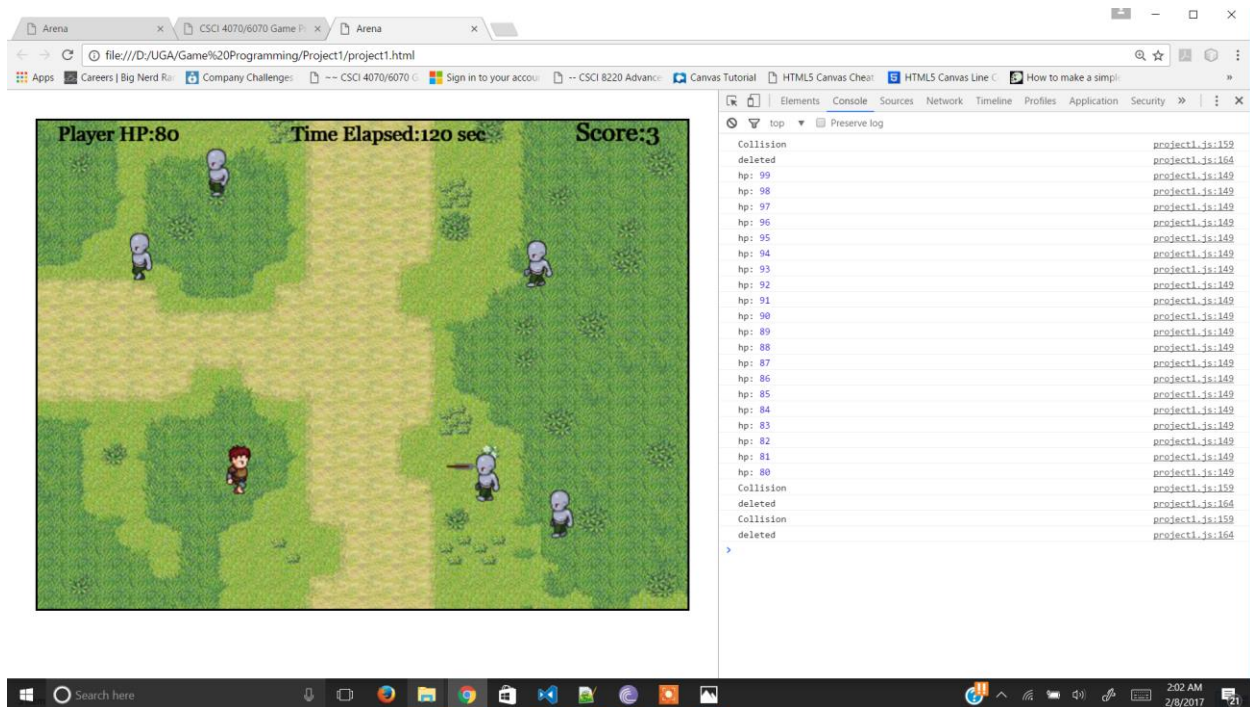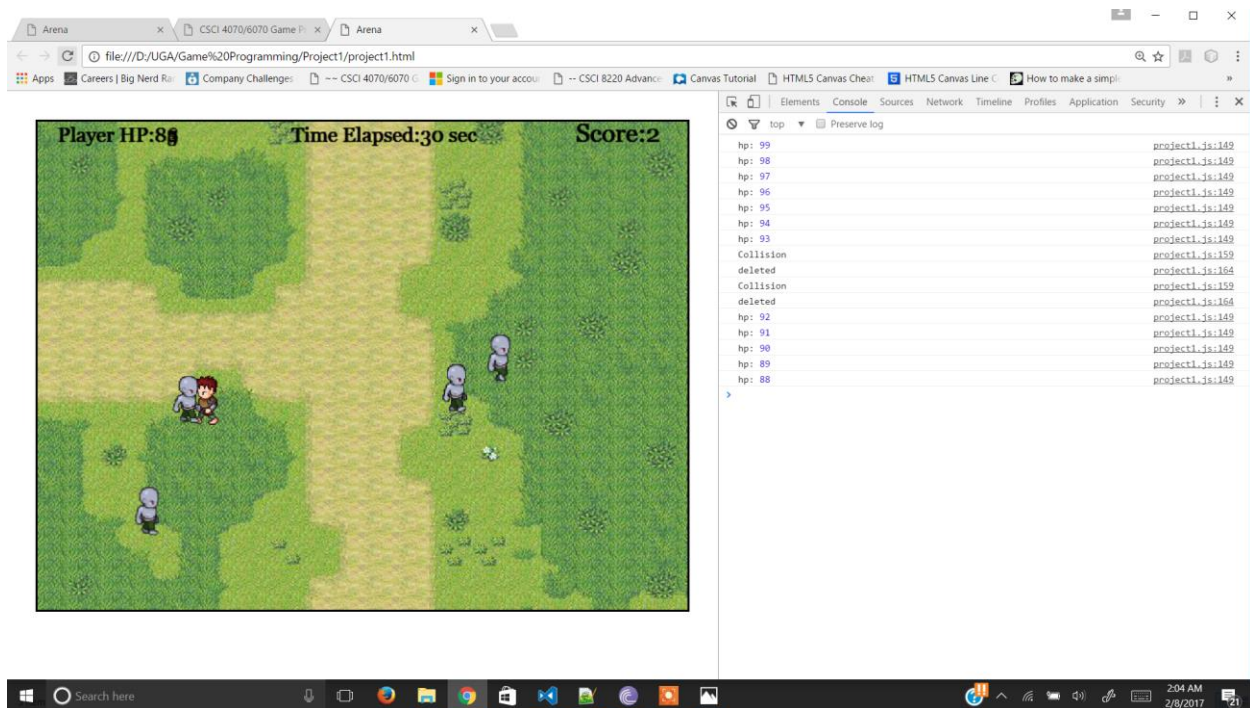
Screenshots:
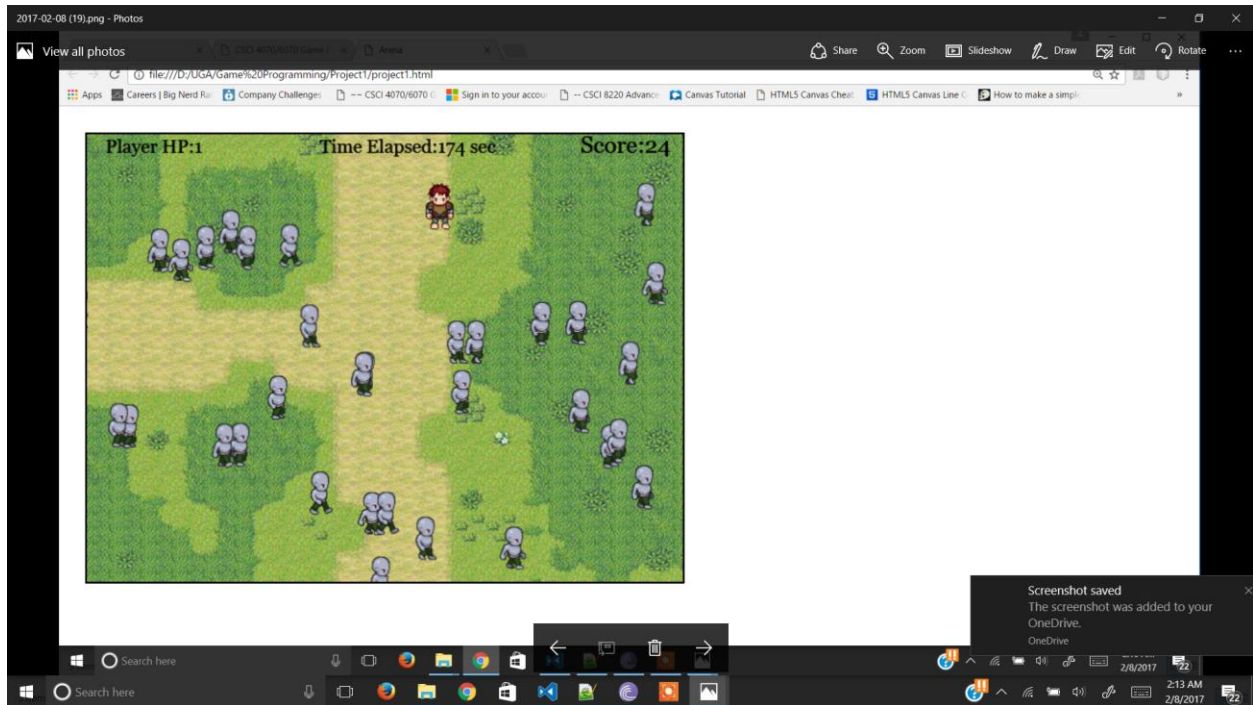
Dig1: Zombie Apocalypse game – HP, Time Elapsed and Score on top of screen.
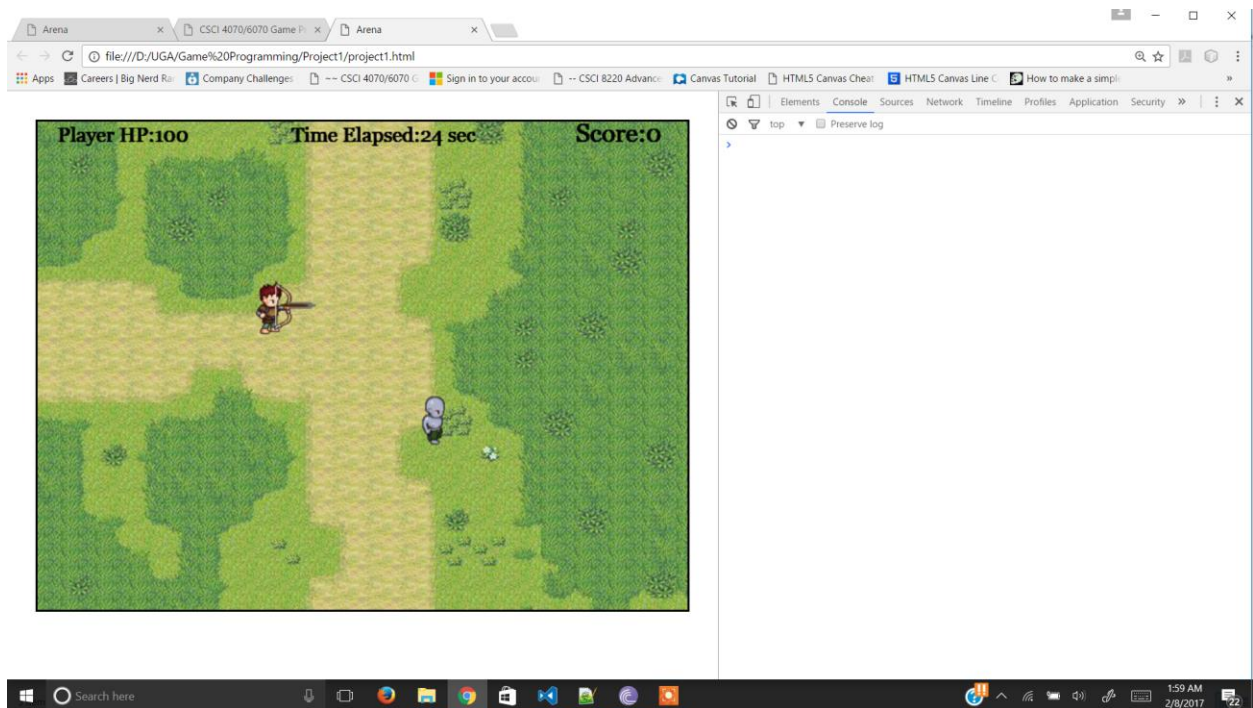
Dig2: Player Shooting Arrow from Bow

Dig3: Collision of Arrow and Zombie, Console displays collision and deletion of object

Dig4: Collision of player and zombie and decrease in HP of player displayed in console

Dig5: Game Over, Score displayed

Dig6: When you survive 200 seconds.